

SOV/137-59-1-505

Testing a Foam-type Dust Collector With Dusts of the Ust'-Kamenogorsk (cont.)

are carried off at > 3 m/sec gas velocity in the FD. In the recovery of ZnO zinc dust sticks to and encrusts the screens; the final dust content of the gases is $0.3 - 4.67$ g/nm³ of gas delivered depending upon the initial dust content and the performance of the FD. The following ways for a more complete recovery of dust are planned: a) Rendering the particles heavier and larger by condensing water vapor on them; b) collection of particles with droplets of electrically charged water. Results of preliminary experiments on the consolidation of very fine dust particles by the condensation method are reported. A centrifugal foam dust collector was designed.

G. G.

Card 2/2

SAVRAYEV, V.P.

Scrubbing gases in wet cyclones. Biul. TSIIN tsvet. met. no.1:29-30
'58. (MIRA 11:4)

(Separators (Machinery))

SOV/136-59-1-14/24

AUTHOR: Savrayev, V.P.

TITLE: Purification of High-Temperature Process Gases in a Centrifugal-Foam Dust-Catcher (Ochistka tekhnologicheskikh gazov s vysokoy temperaturoy v tsentrobezhpennom pyleulovitele)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 1, pp 62-70 (USSR)

ABSTRACT: The author discusses some wet gas cleaning methods and the difficulties of dealing with fine particles. He mentions that the effectiveness of wet gas cleaners can be increased by adding wetting agents (Ref 2) and by increasing particle weights and sizes. The latter course was adopted at the VNIITsvetmet Institute, where water was caused to condense on the particles. Such condensation simultaneously improves wettability. The author enumerates methods for causing condensation, but states that they are relatively difficult and expensive, this objection applying also to the otherwise promising method developed by the Krivorozhskiy institut NIGRI (NIGRI Institute in Krivoy Rog). The use of condensation methods is especially attractive with hot gases since

Card 1/3

SOV/136-59-1-14/24

Purification of High-Temperature Process Gases in a Centrifugal-Foam Dust-Catcher

their sensible heat can be used to generate the required water-vapour, direct spraying being the simplest variant, and this is the basis of the plant the author describes in detail. It consists (Fig 1) of a cyclone followed by a frothing bubbler. The cyclone has a helical inlet, and internal cylinders, which improves its effectiveness (Ref 7) and has water passing through it from the bubbler part. The three-grid bubbler is situated directly above the cyclone part. Some evaporation occurs in the cyclone followed by condensation on particles in the colder bubbler part. Following successful laboratory tests, trials on zinc, lead and copper plants with direct use of the heat content of gases for evaporation were carried out. The installation used had a capacity of 2000 m³/hour of gas, a total height of 2800 mm, with a bubbler-part height of 1300 mm and an outer diameter of the cyclone part of 450 mm. The average particle size was 0.4 - 1.3 microns. Gas inlet temperatures varied from 180 to 600°C. Fig 2

Card 2/3

shows that with increasing temperatures the residual dust

SOV/136-59-1-14/24

Purification of High-Temperature Process Gases in a Centrifugal-Foam Dust-Catcher

content (expressed as a percentage of the initial) decreases and Fig 3 shows the similar effect of increasing water flow (litres per m^3 of gas). The author compares the performance of his installation favourably with that of several high-speed turbulent dust catchers in operation at various non-ferrous metal works (Table 3). A note by G.M. Gordon (Gintsvetmet) suggests that the author has too readily reached conclusions unfavourable to high-speed turbulent types of dust catchers. There are 3 figures, 3 tables and 10 Soviet references.

ASSOCIATION: VNIITsvetmet

Card 3/3

SAVRAYEV, V.P.

18.2000

65689
SOV136-59-10-6/18

AUTHORS:

Getakin, L.S., Betyuk, A.G., Tryb, P.P., Gorkhovatskaya, R.I., Savrayev, V.P.,
Paldman, V.G., Breshchik, A.V. and Polulyakh, V.P.

TITLE:

Mastering the Process of Sulphatizing Lead Dusts

PERIODICAL:

Tsvetnyye metall, 1959, Nr 10, pp 33-42 (USSR)

ABSTRACT:

The method of sulphatizing poly-metallic ores and concentrates was first developed in the Soviet Union by Professor A.Ye. Makovetskiy in 1923. Since then, a great deal of investigational work has been done in the connection. The variant of this method, developed by Makovetskiy-Gintsevskiy process, consisting of mixing the material with diluted 80% sulphuric acid and treating the pulp in a cyclone separator, designed to treat 3 t of sulphide concentrate per day) at Ordzhonikidze. However, even after three years' operation, no means have been found to overcome serious difficulties associated with the formation of crust in the sulphatizer and with rapid corrosion of the equipment and of the gas system, due to the action of hot gases containing water and acid vapours. Work on this problem was resumed at VNIITsvetmet in 1955

Card 1/7

and, as a result, a modified method was developed which, by now, has also been tested on a semi-industrial scale. The main difference between the new and the original method is the application of concentrated sulphuric acid which could not be used in the old process, since the fact that the action of the dense pulp took place in the equipment used in the old process, is in the mixer, re-pulper and sulphatizer. This difficulty was overcome by neutralizing the powder materials mixed with concentrated sulphuric acid in a pan granulator. Owing to the exothermic nature of the reactions taking place during the neutralizing process, the nodules temperature rises to 200°C or even higher and this ensures rapid distillation of chlorine and fluorine and accelerates sulphatization of the pulp components. The subsequent heating of the granules to 350°C (necessary to distill off arsenic and to complete the sulphatizing reactions) is carried out in a reactor, using the fluidized bed principle. The preliminary neutralizing stage is carried out in a large laboratory plant in which dusts from various lead and copper smelting plants were treated. On the basis of the

Card 2/7

results of this work, the staff of the Inst'-Kamnogorskaya Leningrad Combine in cooperation with VNIITsvetmet designed and constructed a large pilot plant capable of treating 10 t of lead-bearing dusts per day. Its main components, ie the granulator shown diagrammatically in Fig 1 and the fluidized bed reactor illustrated in Fig 2, were constructed in the Combine workshops. The granulator, driven by a 14 kW electric motor, is equipped with a fan 1500 mm diameter and 250 mm deep, the axis of which is inclined to the horizontal at an angle of 30 to 60° and which rotates at the rate of 8 to 14 rev/min. Gas exhaust evolved during the process are removed through a dust collector hood. The application of concentrated sulphuric acid made at point 10 of the dusts is carried out in the constructional part of the granulator, the inlet and outlet pipes and the ventilating system. The reactor shell (Fig 2) is also made of steel, lined inside with a single layer of a refractory brick; the active area of the hearth is 0.75 m², the height of the fluidized bed, 105 cm, the total height of the reactor being 3.5 m. The final product obtained in the fluidized bed reactor is discharged into a

Card 3/7

Mastering the process of Sulphatizing Lead Dusts

stainless steel tank, from which it is pumped into mechanical agitators where the sulphate product is leached out. The leaching is the main operation carried out in the hydrometallurgical section: leaching of the sulphate product, settling and washing the lead cake, precipitation of raw metals, removal of arsenic and iron from the solutions and extraction of cadmium. The lead dusts treated in the experimental pilot plant contained (%): 49.3 Pb, 10.3 Zn, 2.5 Cd, 0.5 Cu, 1.0 Fe, 5.3 As, 1.0 Cl and 0.2 V. The consumption of concentrated sulphuric acid in nodulizing this product varied between 35 and 65% of the weight of the dust which corresponded to 110% of the theoretically required quantity. (The authors point out here that the sulphuric acid of the concentration less than 90% is used, the nodulizing process is adversely affected, granules of low mechanical strength are obtained, the quantity of distilled water required for the leaching is increased and the output of the granulator is reduced.) With the granulator inclined at 55° and operating at 8.3 rev/min, 10 to 15 t of the dust was treated per day, the obtained product containing 80% of the -5 mm fraction. The proportion of dust carried away by the exhaust gases was comparatively small and amounted to 1% only; the quantity of gases evolved during the process was also small, owing to the low chlorine, fluorine and arsenic contents in the dust; the H₂S content temperature varied between zero and 9 mg/m³. The optimum temperature for sulphatizing the granules of the fluidized bed reactor was 350°C. The capacity of the reactor was 12 to 14 t/a-24 hr, the dust consumption being 3000 m³/hr. The granules, however, it was found that the time necessary for the completion of the sulphatizing reaction and for the removal of 90% of arsenic, is approximately 45 min; consequently, it can be assumed that the productivity of the reactor could be increased, whereby its specific air consumption would be reduced. The solutions (including those obtained during washing and filtering of the cake) resultant from the water leach of the sulphate product, contained (%): 37.9 Zn, 0.8 Cd, 64.5 Pb; lead cake contained (%): 0.52 Zn, 0.18 Cd, 64.5 Pb;

Card 4/7

Card 5/7

97% Zn and 95% Cd present in the dust was recovered in the solution; the recovery of Zn, Cd and Pb in the lead cake was 2.4, 4.8 and 98% respectively; the recovery of raw metals amounted to 74 to 90%, 80 to 90% arsenic was distilled off during the nodulizing treatment; 80 to 85% chlorine and fluorine and 60 to 75% selenium was distilled off during the dust-collecting process processes. After selecting equipment, the authors state their conclusions. (1) Difficulties experienced in the application of the sulphatizing process on an industrial scale have been overcome by using concentrated sulphuric acid and by nodulizing the pulp in a rotary lead granulator. (2) No signs of corrosion of the granulator and of mild steel, have been observed during the treatment of the dust. (3) The granulator and the fluidized bed reactor have been working continuously without any stoppages and the working conditions have been satisfactory. (4) The process, as outlined in the present paper, has been found to be very efficient regarding the degree of both the recovery of rare and non-ferrous metals present in the dust and the

Card 6/7

removal of the volatile components. (5) A necessary condition for ensuring efficient purification of the gases leaving the fluidized bed reactor is lowering the temperature of the gases to 25 to 30°C and the application of a wet system of dust collection. To comply with the sanitary regulations regarding the arsenic content in the exhaust gases, a supplementary closed-circuit application of wet electro-filter is necessary. (6) The application of the sulphatizing process for nodulizing lead dust provides a convenient means of utilizing this complex material and can be recommended for adoption in all the lead plants in the Soviet Union. There are 2 figures, 1 table and 1 Soviet reference.

ASSOCIATIONS: VNITVatmet
Ust'-Kamenogorskly svintsovo-tsinkovy kombinat
(Ust'-Kamenogorskly Lead-Zinc Combine)

SAVRAYEV, V.P.; SAMKOV, Ye.A.

Recovery of rhenium sublimates during the roasting of molybdenum concentrates. TSvet. met 33 no. 12:53-60 D.'60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov.

(Molybdenum--Metallurgy) (Rhenium)

VARTANYAN, A.M.; SAVRAYEV, V.P.; GETSKIN, L.S.; POLJLYAKH, V.I.

Recovery of selenium and arsenic from gases formed in the
sulfatization of lead flue dusts. TSvet. met. 34 no. 4:21-25
Ap '61. (MIRA 14:4)

(Fly ash) (Nonferrous metals--Metallurgy)

GETSKIN, L.S.; SAVRAYEV, V.P.

Sulfatization of metallurgical dusts in an atmosphere of oxygen-enriched air. TSvet. met. 34 no.11:26-29 N '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov.

(Fly ash)

(Ore dressing)

S/080/61/034/011/003/020
D202/D301

AUTHORS: Getskin, L.S., and Savrayev, V.P.

TITLE: Sublimation and recovery of selenium and arsenic in the sulfation process of metallurgical dusts

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 11, 1961, 2398 - 2403

TEXT: The authors investigated the effects of air current and of the time of heating on the recovery of As and Se from metallurgical dusts under usual conditions of dust sulfation, during which As and Se form volatile As_2O_3 and SeO_2 . As starting material an industrial metallurgical dust from lead production was used, containing 51.1 % Pb, 13.6 % Zn, 0.24 % Se and 3.3 % As, the latter being present mostly as lead and zinc arsenates and partly as arsenic sulfide, Se- mostly as lead and zinc selenides and partly in the elemental form. Their recovery was carried out on a laboratory installation, consisting of a granulator, a reactor with a "constant boiling layer" and a series of dust catchers. During the sulfation pro-

Card 1/3

S/080/61/034/011/003/020
Sublimation and recovery of selenium ... D202/D301

cess air was blown through the granule layer. The starting material was granulated to 2- 3 mm size, concentrated H_2SO_4 being used for granulation and subsequent sulfation at $350^{\circ}C$; for each experiment 1 kg of granules was used, the heating time being 1 hour and the preheated air current varying from 2.75 to 11 nm^3/kg of granules; some experiments without air current being carried out as well. The authors give full details of the equipment used, as well as the obtained results. It is seen that the recovery of Se and As fully depends on the volume of blown air and the time of heating. Without any air current, after heating for 1 hour, the amount of residual content of Se in the granules was equal to 61.2 % of that initially present, and that of As to 44.8 %. With the increase of blown air volume from 2.75 to 11 nm^3/kg of granules, the distilled off amounts of Se and As steadily increased, reacting at 5.5 nm^3/kg 78 % and at 11 nm^3/kg 85 % of the initially present for selenium and 72% and 80 % respectively for arsenic. The air supply of 5.5 nm^3/kg , by which the granules are fluidized is practically sufficient for the recovery of Se and As; for a twofold increase of air supply the yield increased only slightly (7 and 8 % respectively). The above

Card 2/3

S/080/61/034/011/003/020

Sublimation and recovery of selenium ... D202/D301

experiments prove, in the authors' opinion that the use of a furnace with a fluidized layer is the most suitable method for recovery of Se and As. Collection of these elements from the sulfation gases was more complex; the authors used for this purpose two systems of dust-catchers: one consisting of a dry cyclone, a scrubber and a bubbling-foam apparatus, the second - the same equipment with an added wet electrostatic filter. The total recovery of Se in the first equipment amounted to 63 % and that of As to 67 %. With the use of the second, the average total recovery equalled 92 % (89 - 96 %) and 95 % (91 - 98 %) respectively, the yield variations in particular experiments being caused by variations of the voltage potential on the electrostatic filter. Better results were obtained with higher voltages. There are 2 figures, 1 table and 2 Soviet-bloc references. ✓

SUBMITTED: January 12, 1961

Card 3/3

S/080/61/034/012/003/017
D202/D305

AUTHORS: Getskin, L.S., Yatsuk, V.V., and Savrayev, V.P.
TITLE: The recovery of elemental selenium and of selenium dioxide from gases by a condensation method
PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 12, 1961, 2609 - 2613

TEXT: The factors investigated were: Temperature, gas flow and the concentration of the above substances in the gaseous phase. Experiments were carried out on a laboratory scale. ^{75}Se was used as an indicator in both cases, the activity of specimens being measured on radiometer B-2 (B-2) with an MC-7 (MS-7) counter. The specific radioactivity of the tested selenium samples was 11800 imp/min.g. and that of SeO_2 varied between 14200 and 596000 imp/min.g. Experiments with Se were carried out in a current of N_2 and those with SeO_2 in purified, dry air. The flow velocities were 0.7, 0.33 and 0.08 m/sec. which are similar to those used in industry. The results concerning the effects of flow velocity and of the temperature. ✓
Card 1/3

S/080/61/034/012/003/017
D202/D305

The recovery of elemental selenium ...

ture are given in full. It is shown that at gas velocities of 0.7 m/sec (starting Se concentration 5 g/nm³), 0.33 m/sec (starting Se concentration 11 g/nm³) and 0.08 m/sec (starting Se concentration 40 g/nm³) the amounts of unrecovered Se were 3.6, 1.7 and 1.0 % respectively. With increased current velocities the zone of almost full condensation was shifted from about 200°C for 0.08 and 0.33 m/sec towards a lower temperature of 150°C for 0.7 m/sec. The experiments with SeO₂ condensation were carried out under the same conditions; the results obtained have proved that SeO₂ requires a much lower temperature for its full recovery: 100°C for gas velocities of 0.08 and 0.33 m/sec and about 80°C for that of 0.7 m/sec. when its concentration is the same as in the case of Se. In order to check the effect of the starting concentration another series of tests was carried out with 0.1 g/nm³ of SeO₂ at an air current of 0.7 m/sec. It was found that at 68-50°C 97.2 % of SeO₂ was condensed. For a full recovery of SeO₂, therefore the condensation temperature has to be about 100°C lower than that for metallic selenium. There are 3 figures, 2 tables and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language

Card 2/3

The recovery of elemental selenium ...

S/080/61/034/012/003/017
D202/D305

publication reads as follows: L.S. Brooks, J. Am. Soc., 74, 1, 227,
1952.

SUBMITTED: February 6, 1961

Card 3/3

SAVRAYEV, V.P.; KAZAKOV, V.N.; BOGATYREV, M.F.

Purification of converter gases in copper smelting plants. TSvet.
met. 35 no.11:57-62 N '62. (MIRA 15:11)
(Gases--Purification)
(Copper industry--By-products)

SAVRAYEV, V. P.

995-4 21 June

RHENIUM CONFERENCE (USSR)

Tsvetnyye metally, no. 4, Apr 1963, 92-93. S/136/63/000/004/004/004

The Second All-Union Conference on Rhenium, sponsored by the Institute of Metallurgy imeni A. A. Baykov, Academy of Sciences USSR, and the State Institute of Rare Metals, was held in Moscow 19-21 November 1962. A total of 335 representatives from 83 scientific institutions and industrial establishments participated. Among the reports presented were the following: autoclave extraction of Re from Cu concentrates (A. P. Zelikman and A. A. Peredereyev); Re extraction from the gaseous phase (V. P. Savrayev and N. L. Peysakhov); recovery of Re by sorption and ion interchange (V. I. Bibikova, V. V. Il'ichenko, K. B. Lebedev, G. Sh. Tyurekhodzhayeva, V. V. Yermilov, Ye. S. Raimbekov, and M. I. Filimonov); production of carbonyl Re (A. A. Ginzburg); electrolytic production of high-purity Re and electroplating with Re (Z. M. Sominskaya

Card 1/2

AID Nr. 995-4 21 June

RHENIUM CONFERENCE [Cont'd]

S/136/63/000/004/004/004

and A. A. Nikitina); Re coatings on refractory metals produced by thermal dissociation of Re chlorides (A. N. Zelikman and N. V. Baryshnikov); plastic deformation and thermomechanical treatment of Re (V. I. Karavaytsev and Yu. A. Sokolov); growth of Re single crystals and effect of O_2 on their properties (Ye. M. Savitskiy and G. Ye. Chuprikov); Re-Mo, Re-W, and Re-precious-metal alloys (Ye. M. Savitskiy, M. A. Tylkina, and K. B. Povarova); synthesis of Re nitrides, silicides, phosphides, and selenides (G. V. Samsonov, V. A. Obolonchik, and V. S. Neshpor); weldability of Re-Mo and Re-W alloys (V. V. D'yachenko, B. P. Morozov, and G. N. Klebanov); new fields of application for Re and Re alloys (M. A. Tylkina and Ye. M. Savitskiy); and Re-Mo alloy for thermocouples (S. K. Danishevskiy, Yu. A. Kocherzhinskiy, and G. B. Lapp). [WW]

Card 2/2

KERSANDKI, I.I. [Kershansky, I.I.]; VORONIN, I.S.; SVRAEVA, K.E. [Savrayeva, K.Ye.]; GNATISENKO, G.I. [Gnatyshenko, G.I.]; SUTUROVSKI, V.G. [Shchurovskiy V.G.]; SOKOBAEV, S.D. [Shokobayev, Sh.D.]

Semiindustrial research on the electromelting of the raw high-silicon copper concentrates. Anal. matalurg. 16 no.1:51-63 Ja-Mr '62.

SAVRAYEVA, K.Ye.; KUCHIN, G.M.; PANKRATOV, E.G.

Continuous shaking-off of electric filter electrodes according to a magnetic pulse flow sheet at the Ust'-Kamenogorsk Lead-Zinc Combine. TSvet.met. 38 no.10:22-25 0 '65.

(MIRA 18:12)

SAVRDA, J.

"Extinguishing coke with phenol water in the V.M. Molotov Ironworks in Trinec."
Voda, Praha, Vol. 33, No. 11, Nov. 1953, p. 289.

SO: Eastern European Accessions List, Vol. 3, No. 11, Nov. 1954, L.C.

SAVRDA, J.

SAVRDA, J. Dorr system sedimentation installation and its application
in the treatment of blast-furnace sludge in the Trinec metallurgic
plants. p. 275.

Vol. 5, No. 8, Aug. 1955

VCDNI HOSPODARSTVI

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

SAVRDA, K.; STEPANEK, J.

"Devices for measuring the area of paper." P. 121.

PAPIR A CELULOSA. (Ministerstvo lesu a drevarskeho prumyslu). Praha,
Czechoslovakia, Vol. 13, No. 6, June 1958.

Monthly list of East European Accessions (FEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

STEPANEK, J.; SAVRDA, K.; KRUMPHANZL, K.; ZAZVORKA, M., inz.

System of continuous control and analysis of the basis
weight of paper and paperboard. Sbor cel pap no.7: 269-
286 '62.

KERSHANSKIY, I.I.; VORONIN, I.S.; SAVRAYEVA, K.Ye.; GNATYSHENKO, G.I.;
SHCHUROVSKIY, V.G.; SHOKOBAYEV, Sh.D.

Pilot plant testing of the electric smelting of high-silicon
copper concentrates without previous roasting. TSvet.met. 34
no.9:24-34 S '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov
(for Kershanskiy, Voronin, Savrayeva). 2. Institut metallurgii i
obogashcheniya AN KazSSR (for Gnatyshenko, Shchurovskiy).
3. Kazakhskiy politekhnicheskii institut (for Shokobayev).
(Copper--Electrometallurgy)

SAVREY, Vladlen Sergeyevich; SHEPELEV, Igor' Timofeyevich; GUSSAKOVSKAYA,
O.N., red.; FEDOROVA, V.V., tekhn. red.

[Automatic control in the mining industry] Avtomatika v gornoj pro-
myshlennosti. Magadan, Magadanskoe khizhnoe izd-vo, 1961. 92 p.
(MIRA 14:9)

(Magadan Province—Mining engineering—Equipment and supplies)
(Automatic control)

SAVREY, Vladimir Sergeyevich; YURCHENKO, L.I., red.; FEDOROVA, V.V.,
tekhn. red.

[ABC's of industrial automation] Azbuka promyshlennoi avto-
matiki. Magadan, Magadanskoe knizhnoe izd-vo, 1962. 80 p.
(MIRA 16:4)

(Automation)

SAVRICH, V.A. [Savrych, V.O.]

Amounts and chemical form of copper and manganese in experimental
C-avitaminosis. Ukr.biokhim.zhur. 32 no.1:100-106 '60.

(MIRA 13:6)

1. Department of Biochemistry of the Stanislaw Medical Institute.
(COPPER IN THE BODY) (MANGANESE)

SAVRICH, V.A. [Savrych, V.O.]

Cobalt and zinc content of tissues in scorbutic animals. Ukr.
biokhim. zhur. 33 no.2:266-271 '61. (MIRA 14:4)

1. Kafedra biokhimii Stanislavskogo meditsinskogo instituta.
(COBALT IN THE BODY) (ZINC IN THE BODY)
(SCURVY)

SAVRICH, V.A. [Savrych, V.O.]

Concentration of zinc, copper, manganese, and cobalt in the liver
and muscles of rabbits in E-avitaminosis. Ukr. biokhim. zhur. 33
732-737 '61. (MIRA 14:10)

1. Department of Biochemistry of Stanislav Medical Institute.
(TOCOPHEROL) (MINERAL METABOLISM)

SAVRICH, V.R.

Effect of extremital immobilization on the concentration of some
trace elements in muscles and tendons. Ukr. biokhim. zhur. 33 no.5:
739-744 '61. (MIRA 14:10)

1. Department of Biochemistry of Stalino Medical Institute.
(CASTS) (MINERAL METABOLISM)

116

Changes in sedimentation rate and in the blood protein fractions during pneumonia in children. M. E. Sayrik. *Pediatrya* 1960, No. 10, 49-50.—Curves of sedimentation rates and protein fractions in pneumonia in childhood are regular and are most typical at the height of the infection. At the height of the disease there is observed an increase of sedimentation rate; increase of fibrinogen and a shift of albumin-globulin ratio to the globulin side. At the stage of resolution of pneumonia the fibrinogen and sedimentation rate drop, but the globulin shift increases. Sedimentation rate parallels the fibrinogen fraction. G. M. Kozolapoff

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION

SAVRIK, M.Ye.; STOLYAROVA, V.K.

Lamblionogenic hepatocholangeitis in children and its remote sequelae.
Pediatrics, Moskva No.3:35-40 May-June 51. (CIML 21:4)

1. Docent Savrik. 2. Of the Children's Propedeutic Clinic, Second Moscow Medical Institute imeni Stalin (Director--Prof. V.A. Vlasov), attached to the Children's Hospital imeni Filatov (Head Physician--Honored Physician RSFSR V.V. Kvitnitskaya).

SAVRIK, M. Ye.
REMIZOVA, Z.A.; SAVRIK, M. Ye.

Characteristics of the course of stenosis of the pulmonary artery.
(MLRA 7:10)
Pediatriia no.4:75-76 J1-Ag '54.

1. Iz patologoanatomicheskogo otdeleniya Moskovskoy detskoy klinicheskoy bol'nitsy (konsul'tant deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki professor M.A.Skvortsov) i detskoy propedevticheskoy kliniki (dir. prof. V.A.Vlasov) II Moskovskogo meditsinskogo instituta imeni I.V.Stalina.

(PULMONARY STENOSIS,
clin. aspects)

647. SAVRIK M.E. Med.Inst., Astrakhan. *The problem of intestinal giardiasis in children (Russian text) PEDIATRIJA 1955, 3 (83) One hundred cases are reviewed. The treatment advocated consists of administration of mepacrine 30-100 mg. 3 times daily in 3 cycles at 10-day intervals. The first cycle should last for 5 days and the last 2 for 3 days.
Bruce-Chwatt - Lagos (XX,7)

EXCERPTA MEDICA Sec.13 Vol.4/5 Pub.Health, Etc. May 58

SAVRIK, M. E.

1622. DYSENTERY AND LAMBLIOSIS IN CHILDHOOD (Russian text) - Savrik
M. E. - PEDIATRIIA 1957, 4 (22-26) Tables 1

In order to find out the percentage of infestation with lamblia and other protozoa and their role in the origin of diarrhoea a study was performed in Astrachan. In 4 day-nurseries for healthy children the percentage of infestation with several kinds of protozoa was 51.1%: Giardia was present in 46.1% (135 of 295 examined), Trichomonas in 6.1% and E. histolytica in 1.7%; in a home for children the respective figures were: total infestation 51.3%, Giardia 49.3% (73 of 148 examined), Trichomonas 9.1%, Entamoeba 4.7%. In nurseries for children with chronic dysentery: All protozoa 77.2% (138 out of 250), Trichomonas 30.4%, Entamoeba 3.2%. In children infested with Giardia diarrhoea often appeared after upper respiratory infections or other intercurrent diseases. Enterocolitis caused by Giardia is often mistaken for chronic bacillary dysentery but can only be cured by a treatment specific for giardiasis. The recommended treatment consists of 2 courses with mepacrine lasting 5 days and a 3rd for 3 days with a pause of 10 days between the courses.

Najman - Zagreb (L,7,17)

*Chair of Childrens Diseases
Astrakhan Med. Inst.*

SAVRIKHIN, A.P.

Visual observations of Orionid meteor shower in 1960. Astron.
tsir. no.216:30-31 D '60. (MIRA 14:4)

1. Astrofizicheskaya laboratoriya Fiziko-tekhnicheskogo instituta
AN Turkmenskoy SSR.
(Meteors--October)

SAVRIMOVICH, Ye. I.

Certain autopsy data on complications in tetanus treated with combined method of intralumbar and intramuscular administration of anti-tetanus serum. Arkh. pat., Moskva 14 no.6:79-80 Nov-Dec 1952.

(CIMI 23:4)

1. Of the Pathologico-Anatomic Division (Head -- Ye. I. Savrimovich) of Hospital imeni S. P. Botkin (Head Physician -- G. P. Yerusolimchik).

SAVRIYEV, K. S., Tbilisi Construction Inst. "Zur Ermittlung von Bieugungsmomenten-Einflusslinien bei Bogenträgern nach der Methode von A. Strassner."
Bauplanung bautechnik, 5, May 1957.

SAVRON', B.S.

Substitute for fir balsam. Vest. vener. No.3:53 May-June 50.
(GIML 19:4)

1. Of the Clinic for skin and Venereal Diseases (Head -- Prof.
A.P.Lavrov). L'vov Medical Institute, L'vov.

SAVRON', B.S.; KARPENKO, L.N.

Instrument for biopsy of gastric mucosa. Lab.delo 4 no.2:59-61
Mr-Ap '58. (MIRA 11:4)

1. Iz gorodskoy klinicheskoy bol'nitsy No.2 (glavnyy vrach N.F.
Kraynyaya) i kafedry normal(noy fiziologii L'vovskogo meditsinskogo
instituta.

(BIOPSY--EQUIPMENT AND SUPPLIES)

(STOMACH--EXPLORATION)

SAVRON, Ye. S., CHECHETKIN, A. V., KISELEV, G. I., (USSR)

"Metabolism in Hens in Ontogenesis and Heterosis."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

L 42137-65 EWT(m)/EPF(c)/EPR/EWP(j)/EWA(c) Pc-4/Pr-4/Ps-4 RPL WW/RM
 8/0207/65/000/001/6103/0105
 ACCESSION NR: AP5009551

AUTHOR: Dremin, A. N. (Moscow); Savrov, S. D. (Moscow)

TITLE: Emission spectrum of a detonation wave in nitromethane

SOURCE: Prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1965, 103-105

TOPIC TAGS: detonation wave, nitromethane, shock wave, emission spectrum

ABSTRACT: The authors obtained the emission spectra of a detonation front in nitromethane, in the 3800--8000 Å range, using a spectrograph with average dispersion. (ISP-51 with camera of 278 mm focal distance). The spectra were photographed on aerial film and were found to be continuous, and free of any line or molecular bands. End-view observations were made, since the rarefaction waves made side-view observations difficult. The shock-wave and other extraneous glow was eliminated by using a water jacket and also by using a shutter of special design which is described. The energy distribution in the spectrum was determined by a standard heterochromic photometry technique and was found to differ from that of black-body radiation. The difference is attributed to the peculiar features possessed

Card 1/2

L 42137-65

ACCESSION NR: AP5009551

by a detonation wave acting as a light source. These features are discussed in some detail. "The authors thank V. S. Trofimov for a valuable discussion and A. N. Andriyevskiy and Ye. Ye. Chemagin for help with the experiments." Orig. art. has: 4 figures. [02]

ASSOCIATION: None

SUBMITTED: 06Jan64

ENCL: 00

SUB CODE: NE, EM

NR REF SOV: 005

OTHER: 002

ATD PRESS: 3237

Card 2/2

L 9554-66 EWT(1)/EWP(m)/EWT(m)/EWA(d)/EWP(j)/T/FCS(k)/EWA(h)/EWA(c) RPL
ACC NR: AP5026061 WW/JW/WE/RM SOURCE CODE: UR/0405/65/000/002/0003/0011

AUTHOR: ⁵⁵Dremin, A. N. (Moscow); ⁵⁵Savrov, S. D. (Moscow); ⁵⁵Andriyevskiy, A. N. (Moscow)

ORG: none

TITLE: Initiation of ^{7,55}nitromethane ^{1,55}detonation by a shock wave

SOURCE: Nauchno-tekhnicheskiye problemy goreniya i vzryva, no. 2, 1965, 3-11

TOPIC TAGS: detonation theory, high speed detonation, shock wave detonation, nitromethane, mass velocity profile, detonation wave velocity, *shock wave, high speed photography, explosive*

ABSTRACT: Previous studies of high-speed phenomena in shock wave detonations of explosives are discussed. To obtain data for calculating the pressure developed in a high-speed detonation wave in a nitromethane charge, an improved version of the previously described electromagnetic method for registering mass velocity profiles (A. N. Dremin, K. K. Shvedov, V. A. Veretennikov. Sb. "Vzryvnoye delo", Gosgortekhzdat, 1963, No. 52/9) was used. To maintain a constant initiation delay time of 2-3 usec, charges with constant parameters were used in all cases. The mass velocity in the initiating shock wave was 1.6 km/sec at a distance of 5 mm from the partition and 1.55 km/sec at a distance of 10 mm. The additional mass velocity behind the ultrasonic detonation wave was 1.2 km/sec. The reaction zone behind the detonation wave was probably very narrow, since it did not register on the oscillograms. The wave velocities in the high-speed detonation were studied by high-speed photography. Using

Card 1/2

UDC: 532.593+534.222.2

L 9554-66

ACC NR: AP5026061

the photograms obtained and the time-distance diagram, the detonation wave velocity in the nitromethane compressed by a shock wave at 72000—77000 atm was calculated to be 9.0 ± 0.5 km/sec. The detonation wave velocity obtained by the method of direct observation of the wave propagation, with high-speed photography and a small hexogen charge to initiate the detonation at the moment when the shock wave enters the charge, yielded a lower value for the detonation wave velocity (8.1 ± 0.1 km/sec) than the previous method, based on the mass velocity measurements. The experimental mass velocity and detonation wave velocity values were used to calculate the high-speed detonation pressure (250000 atm) in the nitromethane compressed by a shock wave and the pressure in the initiating shock wave (77000 atm). Experiments with the initiation of nitromethane detonation by a weak shock wave (70000 atm) showed the absence of high-speed detonation. Experiments with the detonation of nitromethane charges compressed by a shock wave by the collision of a shock and a detonation wave showed a delay in the appearance of the "preglow" phenomena which propagate in the compressed charge at velocities up to 40 km/sec. Orig. art. has: 10 figures. [PS]

SUB CODE: 1920/ SUBM DATE: 09Jan65/ ORIG REF: 004/ OTH REF: 006/ ATD PRESS: 4150

beh
Card 2/2

ACC NR: AP6020551

SOURCE CODE: UR/0414/66/000/001/0036/0046

AUTHOR: Dremin, A. N. (Moscow); Savrov, S. D. (Moscow)

ORG: none

TITLE: Stability of the detonation front in liquid explosives

SOURCE: Fizika goren'ya i vzryva, no. 1, 1966, 36-46

TOPIC TAGS: detonation stability, liquid explosive, nitromethane, nitrate, ~~tetranitromethane, dinitroglycerine, trinitroglycerine, detonation, liquid detonation~~

ABSTRACT: The stability of the detonation front in liquid explosives (nitromethane, glycidyl nitrate, HNO₃+ dichloroethane, tetranitromethane, and di- and trinitro-glycerine)^{||} was studied experimentally using the light reflection method, in which an image of a bright object (a light source with a diaphragm) on the surface of the detonation front is photographed. The results showed that under normal detonation conditions, the detonation front in nitromethane and in glycidyl nitrate is unstable. Under overcompression, when the detonation is initiated by a high-density hexogen^{||} charge, the detonation front in nitromethane is stable. Under normal detonation conditions stable detonation fronts were observed in tetranitromethane and di- and trinitroglycerine. Measurement of the mass velocity in the reaction zone in tetranitromethane indicated the absence of a clearly defined induction period. The

Card 1/2

UDC: 534.222.2

L 3200.06
ACC NR: AP6020551

experimental results are explained by mechanisms involving the chemical reactions behind the detonation front and the development of thermal explosions. Orig. art. has: 10 figures. [PS]

SUB CODE: 19/ SUBM DATE: 16Sep65/ ORIG REF: 016/ OTH REF: 001/ ATD PRESS: 502/

Card 2/2 *LC*

SAVIN, G.N.; SAVRUK, M.A.

Stresses in bars and plates near circular and alveolar holes. Nauch.
zap. IMA L'viv. fil. AN URSR no. 1:77-92 '53. (MLRA 8:11)
(Strains and stresses) (Elastic plates and shells)

SOV/124-57-5-5863

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 120 (USSR)

AUTHOR: Savruk, M. A.

TITLE: The Bending Behavior of an Isotropic Beam Weakened by Two Unequal-sized Circular Cutouts and Subjected to a Constant Shear Force (Izgib postoyannoy pererezyvayushchey siloy izotropnoy balki, oslablennoy dvumya neravnymi krugovymi vyrezami)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-ta, 1955, Nr 29, pp 97-104

ABSTRACT: The author investigates the bending behavior of a thin isotropic flat strip weakened by two unequal-sized circular cutouts and subjected to a constant shear force. It is assumed that no external forces are being exerted upon the edges of the cutouts. Bipolar coordinates are used. For the case of a continuous cantilever-type beam the author selects, in addition to the basic stress function, a stress function corresponding to the supplementary stresses induced by the presence of the cutouts; this function does not provide for any stresses at infinity and fulfills the boundary conditions. Values are given for the stresses exerted along the edges of the cutouts.

A. K. Rukhadze

Card 1/1

SOV/124-57-3-3377

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 106 (USSR)

AUTHOR: Savruk, M. A.

TITLE: The Effect of a Circular Hole on the Stress Distribution in a Half-plane Subjected to Bending (Vliyaniye kruglogo otverstiya na napryazheniya v izgibayemoy poluploskosti)

PERIODICAL: Nauch. zap. L'vovsk. politekhn. in-ta, 1955, Nr 30, pp 65-71

ABSTRACT: The paper analyzes the problem of the flexure of a half-plane weakened by a circular hole at a distance b from the edge of a plate which is under the action of bending moments M applied at infinity. Both the edge of the plate and the circumference of the hole are free from external forces. The author solves the problem under consideration in terms of bipolar coordinates. The unknown biharmonic functions $w_1^{(1)}(\alpha, \beta)$ and $w_1^{(2)}(\alpha, \beta)$ which solve the given problem are determined from the boundary conditions and the conditions at infinity. Knowing the stress function $w(\alpha, \beta)$, the author uses the well-known formulas to determine the stress distribution at the circumference of the hole and at the straight edge of the plate. The results obtained are in the form of infinite, rapidly converging,

Card 1/2

SOV/124-57-3-3377

The Effect of a Circular Hole on the Stress Distribution (cont.)

trigonometrical series. Numerical examples are adduced. A similar method has been employed in the solution of a problem on the tensioning of a half-plane weakened by a circular hole [Uflyand, Ya. S., Bipolyarnyye koordinaty teorii uprugosti (Bipolar Coordinates in the Theory of Elasticity), Gostekhizdat, 1950, p 212].

N. I. Kalynyak

Card 2/2

SAVRUK, M. A.

124-11-13011

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr. 11, p. 102 (USSR).

AUTHOR: Savruk, M. A.

TITLE: The Influence of Openings of Circular or Crescent-Like Shape upon the Stress Obtaining under Pure Shear. (Vliyaniye krugovykh i lunochnykh otverstiy na napryazheniya pri chistom sdvige)

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-t, 1956 (1957), Nr. 38, pp 126-135. Ukrainian.

ABSTRACT: Investigation of the plane problem of elasticity theory for an infinite body weakened by openings, the shape of which is generated by two mutually intersecting circular arcs. It is assumed that at infinity the body is subjected to pure shear.

With the aid of bi-polar coordinates two cases are investigated: (1) A single opening shaped as a symmetrical crescent (the solution assumes the form of an integral Fourier expansion); (2) Two circular openings having identical radii (the solution assumes the form of a trigonometric series). In both cases numerical results are found relative to the stress concentrations prevailing.

(Ya. S. Uflyand)

Card 1/1

SOV/124-58-7-7855

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 78 (USSR)

AUTHOR: Savruk, M.A. [Savruk, M.A.]

TITLE: Transverse Flexure of a Beam Weakened by Two Equal Circular Holes (Poperechnyy izgib balki, oslablennoy dvumya ravnymi kruglymi otversiyami) [Poperechnyy zhyn balky oslablenoy dvoma rivnymi kruglymy otvoramy]

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-t, 1956 (1957), Nr 38, pp 136-140. (in Ukrainian)

ABSTRACT: The elastic stresses in a uniformly loaded thin isotropic strip with two equal circular holes are investigated. The reasonings of elasticity theory for an infinite area are used since it is assumed that the radii of the holes are small when compared to the strip dimensions and that the external load is acting in the plane of the strip. The contours of the holes are unrestrained. The problem is reduced to finding a biharmonic function (in bi-polar coordinates) that fulfill the boundary conditions and the conditions at infinity. This function consists of two parts, the first of which is related to an infinite area without holes and the second corresponds to the additional elastic

Card 1/2

SOV/124-58-7-7855

Transverse Flexure of a Beam Weakened by Two Equal Circular Holes

stress condition resulting from the presence of the holes. The second term of the desired function is equal to zero at infinity and reflects the stresses on the contours of the holes developing in accordance with the first part of the biharmonic function. The results obtained may be employed in practice for finite areas, also, since the additional stresses corresponding to the second part of the desired function diminish greatly with increasing distance from the contour of the holes. It is demonstrated that within a calculation accuracy of 6%, the diameter of a hole in the transverse direction may attain $2/3$ of the height of the strip.

N.S. Chausov

1. Beams--Mathematical analysis
2. Beams--Stresses
3. Beams--Elasticity
4. Beams--Theory

Card 2/2

SAVRUK, M.A. (L'vov)

Concentration of stresses in a thin isotropic bar weakened
by two unequal circular holes in case of a pure shear. Prykl.
mekh. 5 no.3:327-330 '59. (MIRA 13:2)

1.L'vovskiy politekhnicheskii institut.
(Elastic plates and shells)

SAVRUK, M.A. (L'vov)

Stresses in an isotropic bar weakened by two unequal circular holes
and subjected to the action of an evenly distributed load. Prykl.
mekh. 6 no.1:100-105 '60. (MIRA 13:6)

1. L'vovskiy politekhnicheskii institut.
(Elastic plates and shells)

SAVRUK, M.A. (L'vov)

Effect of an eccentrically located circular hole on stresses in a strip caused by pure shear. Prikl. mekh. 1 no.6:130-131 '65. (MIRA 18:7)

1. L'vovskiy politekhnicheskii institut.

MARTYNOVICH, T.L. (L'vov); SAVRIK, M.P. (L'vov)

Elastic equilibrium of a plate having a curvilinear hole with a
pressed-in closed rod. Prikl. mekh. 1 no.8:40-46 '65.
(MIRA 18:9)

1. L'vovskiy gosudarstvennyy universitet.

SAVRUKHIN, A.P.

Morphology of meteor trails. Biul. VAGO no.35:37-39 '64. (MIRA 18:4)

1. Ashkhabadskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva.

LEBEDEV, B.N.; ZAZUBIN, A.I.; LOSHAKOVA, A.K.; IPPOLITOVA, M.V.;
SAVRUKOVA, G.D.

Treatment of lean complex ores. Izv.AN Kazakh.SSR.Ser.met.obog.i
ogneup. no.2:43-49 '60. (MIRA 13:8)
(Ore dressing)
(Nonferrous metals—Metallurgy)

SAVRUKHIN, A. P.

"Observations of the Penumbra Lunar Eclipse of October 18 1948." Astr. Tsirk.,
No. 80(1948) (in collaboration with I. S. Astapovich).

SAVRUKHIN, A.P.

33876. Iridy V 1948 G. Eyuliyetyen: Vsesoyuz. Astron. - Gedyez. O-va, No 7, 1949.
C.33.

SO: Letopis' Zhurnal'nykh Statey, Vol. 46, Moskva, 1949.

SAVRUKHIN, A.P.

Investigation of the bolide of June 23, 1951, and the drift of its trail.
Izv. AN Turk. SSR no. 2:69-73 '51. (MLR 6:8)

1. Fiziko-tekhnicheskii institut Turkmenskogo filiala Akademii nauk SSSR.
(Turkmenistan--Meteors) (Meteors--Turkmenistan)

SAVRUKHIN, A. P.

"The Flocculence of the Structure of the Perseid Meteor Swarm from 1951
Observations, on a 3780 km Base," Astron. Tsir., No.121, pp. 9-11, 1951

Askkhabad Astronomical Observatory

Translation 563988

1. SAVRUKHIN, A. P.

2. SSSR (600)

4. Meteors

7. Lunar tides on the basis of meteor observations from 1942 to 1945.
Astron. tsir. No. 121, 1951

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

1. SAVRUKHIN, A. P.
2. SSSR (600)
4. Meteors
7. "Clumpiness" of the structure of the Perseid meteor stream according to observations made in 1951 along a 3780 kilometer base.
Astron. tsir. No 121, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SAVRUKHIN, A. P.

Solar System, Meteors (3993)

Izv. AN Turkmenskoy SSR, No 6, 1953, pp 95

Savrukhn, A. P.

May Aquarides 1951 According to Observations at Ashkhabad

Observations were made on 7 and 8 May and 15 meteors of the gamma stream of Aquarius were recorded. The coordinates of the radiant were found: right ascension = 337° and declination = -1° (1950.0)

SO: Referativnyy Zhurnal -- Astronomiya i Geodeziya, No 6, 1954 (W-3C076)

SAVRUKHIN, A.

Activity of the Perseid meteor stream in 1953 according to observations made at Vannovskiy, Ashkhabad Province. Astron. tsir. no.143:24-26 N '53. (MLRA 7:8)

1. Ashkhabadskaya Astrofizicheskaya laboratoriya.
(Meteors--August)

SAVRUKHIN, A.P.

Study of meteors on photographic data. Trudy AN Tadzh. SSR 20:51-55
154. (MIRA 13:3)

(Meteors)

SAVRUKHIN, A.P.

Observations of the zodiacal belt in August 1954. Astron. tsir.
no. 153:19 0 '54. (MIRA 8:5)

1. Ashkhabadskaya Astrofizicheskaya laboratoriya.
(Zodiac)

SAVRUKHIN, A.P.

Activity of the Perseid meteor stream in 1954. Astron. tsir.
no. 154:12-13 N '54. (MLRA 8:6)

1. Ashkhabadskaya astrofizicheskaya laboratoriya.
(Meteors--August)

SAVRUKHIN, A.P.

Observations of Orionid showers in October, 1954. Astron. tsir.
no. 155:22-23 D '54. (MLRA 8:6)

1. Ashkhabadskaya astrofizicheskaya laboratoriya.
(Meteors--October)

SAVRUKHIN, A.P.

Activity of Orionid meteoric showers in 1955. Astron. tsirk. no. 167:
26-27 P '56. (MLRA 9:9)

1. Astrofizicheskaya laboratoriya, Ashkhabad.
(Meteors--October)

SAVRUKHIN, A.P.

Data processing of base photographs of two Orionid meteor streams.
Trudy Inst. fiz. i geofiz. AN Turk. SSR 3:19-30 '57. (MLRA 10:9)
(Meteors)

SAVRUKHIN, A. P.

Activity of the Perseid meteoric shower in 1956. Astron. tsir. no.
177:19-21 P '57. (MLRA 10:6)

1. Ashkhabadskaya astrofizicheskaya laboratoriya.
(Meteors--August)

SOV/169-59-3-2978

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 3, p 136 (USSR)

AUTHOR: Savrukhn, A.P.

TITLE: The Results of Processing the Base Photographs of 23¹² Meteors

PERIODICAL: Tr. In-ta fiz. i geofiz. AS TurkmSSR, 1958, Vol 4, pp 63 - 74

ABSTRACT: From August 5 to 6, 1953, photographs of meteors were taken by the Ashkhabadskaya astrofizicheskaya laboratoriya (Ashkhabad Laboratory of Astrophysics) of the Institut fiziki i geofiziki AN TurkmSSR (Institute of Physics and Geophysics of the AS TurkmSSR). Pictures of a total of 223 meteors were taken during 11 nights. It was possible to process the photographs of 27 meteors. The author compiled the information on 23 meteors in subject article in several tables: date, number of interruptions, radiant, Z_R , altitudes of appearing and disappearing of meteors, velocities. The observation and processing results are illustrated by corresponding tables and graphs. Meteors Nr 13 and 18 of the author's catalog showed ionization

Card 1/2



SOV/169-59-3-2978

The Results of Processing the Base Photographs of 23 Meteors

trails, which were observed by six-power binoculars. The trail of the Nr 13 meteor was visible for 48 sec in the region of maximum brightness at an altitude of 95.7 - 93.5 km. The trail of the Nr 18 meteor was observed for 10 sec at the flash points at altitudes of 86.7 - 84.9 km and 86.1 - 84.9 km.

L.A. Katasev



Card 2/2

SAVRUKHIN, A.P.

Photographic observations of meteors in Ashkhabad, August 1955.
Izv. AN Turk. SSR no.4:116-118 '58. (MIRA 11:10)

1. Institut fiziki i geofiziki AN Turkmenskoy SSR.
(Meteors--August)

NEVEL'SKIY, A.V., mladshiy nauchnyy sotrudnik; BRATIYCHUK, M.V.;
SAVRUKHIN, A.P.; MOZHZHERIN, V.M.; LATYPOV, A.A.; CHUPRINA,
R.I., mladshiy nauchnyy sotrudnik

Results of photographic observations of artificial earth
satellites. Biul.sta.opt.nabl.isk.sput.Zem. no.8:17-24
'59. (MIRA 13:6)

1. Astrosovet AN SSSR (for Nevel'skiy). 2. Nachal'nik stantsii
opticheskikh nablyudeniye Uzhgorodskogo gosuniversiteta (for
Bratiychuk). 3. Nachal'nik stantsii fotonablyudeniye iskusstvennykh
sputnikov Zemli pri Instantsii nablyudeniya sputnikov Krymskoy
astrofizicheskoy observatorii (for Mozhzherin). 5. Nachal'nik
fotograficheskoy stantsii Tashkentskoy astronomicheskoy
observatorii AN UzSSR (for Latypov). 6. Astrosovet AN SSSR (for
Chuprina).

(Artificial satellites--Tracking)

OMAROV, T.B.; PANOVA, G.V.; SYSHCHENKO, T.Ye.; FIRAGO, B.A.; SHCHEGOLEV,
D.Ye.; LIYGANT, M.; SAVRUKHIN, A.P.

Results of photographic observations of artificial satellites.
Biul.sta.opt.nabl.isk.sput.Zem. no.10:17-24 '59.

(MIRA 13:3)

1. Astrofizicheskiy institut AN KazSSR (for Omarov). 2. Glavnaya
astronomicheskaya (Pulkovskaya) observatoriya AN SSSR (for Panova,
Syshchenko, Firago, Shchegolev). 3. Nachal'nik stantsii nablyudeni-
ya iskusstvennykh sputnikov Zemli, Institut fiziki i geofiziki AN
Tadzhiskoy SSR (for Savruxhin). 4. Nachal'nik stantsii Tartusskogo
gosudarstvennogo universiteta (for Liygant).

(Artificial satellites--Tracking)

SAVRUKHIN, A.P.

Visual observations of Draconids in 1959. Astron. tsir.
no. 206:10 D '59. (MIRA 13:6)
(Meteors--October)

SAVRUKHIN, A.P.

Observations of Alcock's comets (1959e) and (1959f) in Ashkhabad.
Astron.tsir. no.207:1-2 D '59. (MIRA 13:6)

1. Institut fiziki i geofiziki AN Turkmenkoy SSR, g. Ashkhabad.
(Comets--1959)

87020

S/034/60/000/209/007/009
E032/E114

AUTHOR: ~~Savrukhin, A.P.~~

TITLE: Number of Meteors in the Perseid Shower in 1959

PERIODICAL: Astronomicheskii tsirkulyar, 1960, No. 209, p. 32

TEXT: The observations were carried out on August 9-13, 1959, at the Institute of Physics and Geophysics of the AS Turk.SSR. The coordinates of the point of observation were $58^{\circ} 06' 36''$ N, $\varphi = 37^{\circ} 56' 40''$ N, $H = 574$ m. Observations could not be carried out over longer periods of time owing to cloudy weather. The results obtained are given in the following table (symbols are said to be defined in the previous paper published in Astronomicheskii tsirkulyar No. 177, 1957).

1959, August	ΔT	N+n	N	N _h	n _h	i
9/10	1 ^h 87	22	8	4.3	7.5	36%
10/11	1 35	23	8	5.9	11.1	35
12/13	3 50	193	168	48.0	7.1	87
"	3 79	215	182	48.0	8.7	85

Card 1/2

87020
S/034/60/000/209/007/009
E032/E114

Number of Meteors in the Perseid Shower in 1959

On August 9/10 and 10/11 the observations were carried out in the first half of the night and the zenith distance of the radiant z_R was greater than 60° . An independent observation by another observer was carried out during the night of August 12/13 and the results are shown in the following table.

August 12/13	ΔT	$N+n$	N	N_h	i	N'_h
00h-01h	0h.50	21	19	38.0	90%	82.6
01-02	0.92	48	40	43.5	83	75.7
02-03	0.88	46	41	46.5	88	67.7
03-04	0.53	36	31	58.5	86	74.7
04-05	0.67	42	37	55.2	88	63.7

The hourly rate for the radiant reduced to the zenith was calculated from $N'_h = N_h \sec z_R$. Legal time of the 4th zone is quoted in these tables. There are 2 tables.

ASSOCIATION: Institut fiziki i geofiziki AN Turkmenskoy SSR
Card 2/2 (Institute of Physics and Geophysics, AS Turk.SSR)
SUBMITTED: January 1960

87021

3,1550 (1057,1062,1129)

S/034/60/000/209/008/009
E032/E114

AUTHOR: ~~Savrukhin, A.P.~~

TITLE: Visual Observations of Quadrantids in 1960

PERIODICAL: Astronomicheskiy tsirkulyar, 1960, No. 209, pp. 33-34

TEXT: The observations were carried out at the Astrophysical Laboratory of the Physico-Technical Institute of the AS Turk.SSR ($\lambda = 58^{\circ} 06' 36''$ E, $\varphi = 37^{\circ} 56' 40''$ N, $H = 570$ m above sea level) during the nights of January 2/3 and 3/4, 1960. During the first night the observations were carried out from 4h to 5h (legal time of the 4th zone). During the second night they were carried out between 4h and 7h; during the first hour of observation the cloud coverage was 30-40%, during the second hour it was 10-20%, and the third hour was clear. In all cases the clouds were on the edge of the visibility zone. Observations were made of the region of the radiant of the stream and the visibility was good; stars up to 6^m could be seen. The results obtained are shown in the following table.

X

Gard 1/4

87021

S/034/60/000/209/008/009
E032/E114

Visual Observations of Quadrantids in 1960

1960	ΔT	N+n	N	N_h	n_h	i	m_N	m_n
Jan. 2/3, 4h-5h	0h.81	21	4	5	21	19%	3.8	3.2
3/4, 4-7	2.65	328	279	105	18	85	2.9	2.9

The stream was particularly well populated during the night of January 3/4 when the hourly rate was greater than 100. The results obtained are shown in the following table.

1960, Jan. 3/4	ΔT	N+n	N	N_h	n_h	i	m_N	m_n
4h - 5h	0h.73	94	82	112	16	87%	2.6	2.0
5 - 6	0.92	107	89	97	20	83	2.8	2.8
6 - 7	1.00	127	108	108	19	82	3.1	3.3

In the above tables the notation is as follows. ΔT - duration of observations; N+n - number of recorded meteors; N - number of meteors in the stream; N_h and n_h - hourly rates for meteors in the stream and background respectively; $i = N/(N+n)$ expressed
Card 2/4

87021

S/034/60/000/209/008/009
E032/E114

Visual Observations of Quadrantids in 1960

in percent; m_N and m_n - average brightness of the meteors in the stream and the background respectively; $N'_h = N_h \sec z$.
A consideration of the variation of the hourly rate for the stream in successive 15-minute time intervals shown that the maximum was observed when the longitude of the sun was $282^\circ 41'.5$. The results are shown in the following table.

1960, Jan. 3/4	ΔT	N	N_h	N'_h	$\lambda_\odot$	m_n
5h46m - 6h00m	0h.25	25	100	132	$282^\circ 41'$	3.1
6 01 - 6 15	0 .25	30	120	154		3.1
6 16 - 6 30	0 .25	27	108	134	$282 \quad 42$	3.1
6 31 - 6 45	0 .25	28	112	135		3.1
6 46 - 7 00	0 .25	23	92	108	$282 \quad 43$	3.0

The radiant of the stream was determined directly during the observations by extension of the visible trajectories of the meteors, and its coordinates were found to be $\alpha = 230^\circ$, $\delta = +52^\circ$.

Card 3/4

87021

S/034/60/000/209/008/009
E032/E114

Visual Observations of Quadrantids in 1960

The diameter of the radiating area was 4.0° . There was a further neighbouring radiant with $\alpha = 238^\circ$, $\delta = +46^\circ$ for which the hourly rate was 4-5. The velocities of the meteors belonging to this radiant were lower than those of the Quadrantids. There are 3 tables.

ASSOCIATION: Astrofizicheskaya laboratoriya FTIN AN Turkmenskoy SSR
(Astrophysical Laboratory of the Physico-Technical Institute, AS Turk. SSR)

SUBMITTED: January, 1960

Card 4/4

SAVRUKHIN, A.P.

Observation of the η -Aquarids meteor shower in 1960. Astron.
tsir. no.213:25-26 J1 '60. (MIRA :14:1)

1. Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR.
(Meteors—May)

SAVRUKHIN, A.P.

Visual observations of δ -Aquarid meteor shower in 1960. Astron.
tsir. no.215:27-28 0 '60. (MIRA 14:3)

1. Astrofizicheskaya laboratoriya Fiziko-tekhnicheskogo instituta
AN Turkmanskoy SSR.
(Meteros--July)

BELOUS, A.T.; SAVRUKHIN, A.P.; INOZEMTSEV, Yu.A.

Radar observations of the Geminid meteor shower in 1958. Izv.AN Turk.
SSR.Ser.fiz.-tekh., khim,i geol.nauk no.3:23-27 '61. (MIRA 14:7)

1. Fiziko-tekhnicheskii institut AN Turkmenskoy SSR.
(Meteors) (Radar in astronomy)

S/169/62/000/011/063/077
D228/D307

AUTHOR: Savrukhin, A.P.

TITLE: Results of visual observations of four ionization meteor tracks

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 7, abstract 11G39 (Byul. Komis. po kometam i meteoram Astron. soveta AN SSSR, no. 6, 1961, 45-53)

TEXT: Conclusions about wind conditions in upper atmospheric layers (in a horizontal plane) are drawn from visual meteor track observations. The method of such observations is described, and results are given for wind investigations at heights of from 87 to 104 km. The wind speed modulus was found to undergo small changes and to equal 49 m sec^{-1} on the average. A high wind speed gradient of 8 m sec^{-1} per 1 km is noted in the height interval 96-102 km. A clockwise rotation of the wind speed vector with the elapse of time is observed for a given height. It is noted that visual meteor track observations sometimes indicate the presence of

Card 1/2

Results of visual observations ...

S/169/62/000/011/063/077
D228/D307

small-scale turbulent regions.

[Abstracter's note: Complete translation]

Card 2/2

SAVRUKHIN, A.P.

Photographic observations of meteor tracks. Biul.VAGO no.32:
11-12 '62. (MIRA 15:11)

1. Fiziko-tehnicheskiy institut, astrofizicheskaya laboratoriya
AN Turkmenskoy SSR.
(Meteors) (Astronomical photography)

S/269/63/000/004/026/030
A001/A101

AUTHOR: Savrukhin, A. P.

TITLE: The results of visual observations of four ionization meteor trains

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 4, 1963, 69, abstract
4.51.544 ("Byul. Komis. po kometam i meteoram Astron. soveta
AN SSSR", 1961, no. 6, 45 - 53)

TEXT: Visual observations of meteor trains were conducted with binoculars (8 x 8) in October 1955. The processing of four meteor trains belonging to the Orionid stream is presented in the article. The drift of meteor trains was determined by the method described by V. P. Tsesevich ("What and how to observe in sky", 1950). The table gives altitudes for selected train points, calculated on the basis of the altitude for the maximum of train brightness on assumption that it coincides with the meteor brightness maximum; the altitude of the train brightness maximum was taken according to P. M. Millman's summary. The following data are also given for all the points of a train: displacement speed, azimuth of displacement, duration of train details visibility. The average

Card 1/2

The results of visual observations of...

S/269/63/000/004/026/030
A001/A101

from four trains height distribution of the absolute velocity value is derived, which includes a range from 87 to 104 km. The obtained mean gradient of velocity agrees well with results of radar observations. Polar graphs of drift are presented for every train, as well as the data on a small-scale turbulent region observed in one of the trains. There are 10 references.

S. Mayeva

[Abstracter's note: . Complete translation]

Card 2/2

SAVRUKHIN, A.P.

Air currents at altitudes of 80 to 100 km from observations of
the drift of meteor trains. Meteor. i gidrol. no.10:34-36 0 '62.
(MIRA 15:9)

1. Fiziko-tehnicheskiiy institut AN Turkmenskoy SSR.
(Atmosphere, Upper)

S/202/63/000/001/002/006
EQ32/E314

AUTHOR: Savrukhin, A.P.

TITLE: Drift of ionized meteor trails

PERIODICAL: Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk. no. 1, 1963, 15 - 19

TEXT: Visual observations of stable meteor trails were carried out at the Astrofizicheskaya laboratoriya fiziko-tekhnicheskogo instituta (Astrophysical Laboratory, Physicotechnical Institute) in August, 1956, with the aid of binoculars. The aim of the observations was to determine the drift of the trails in the upper stratosphere and in the lower part of the E region. Altogether 13 trails of Perseids were recorded between August 11 and 15. It was assumed in the analysis of the data that the drift was parallel to the plane of the horizon. Analysis of the data was used to determine the distribution of drift velocity with height for each trail. The results were then combined to give the average velocity-height distribution for $h = 81 - 101$ km above the Earth's surface. The general tendency is for the drift velocity to decrease with
Card 1/2